

WHAT IS CLAIMED IS:

1. A method of producing a semiconductor device upon receiving an order for the semiconductor device by transferring information between a person who wishes to receive an order and a person who wishes to place an order through a network, the method comprising:

causing the person who wishes to place an order to input specifications of the semiconductor device by request of the person who wishes to place an order;

generating a plurality of circuit patterns in consideration of conditions for transferring a pattern by charged-particle beam exposure of a character projection method based on the specifications of the semiconductor device, and obtaining at least two design parameters for each of the circuit patterns; and

presenting said at least two design parameters to the person who wishes to place an order for each of the circuit patterns and causing the person who wishes to place an order to select a circuit pattern satisfying a desired condition.

2. The method according to claim 1, wherein a cost and a delivery time period for each of the circuit patterns are calculated in addition to the design parameters, and the cost and the delivery time period are presented to the person who wishes to place an order in addition to the design parameters.

3. The method according to claim 2, wherein

the cost includes a production cost of a CP aperture to be newly produced by the charged-particle beam exposure of the character projection method, and the delivery time period includes a production time period required for newly producing a CP aperture.

4. The method according to claim 1, further comprising: requesting a device maker to generate the selected circuit pattern through the network after the circuit pattern is ordered by the person who wishes to place an order.

5. The method according to claim 1, further comprising: requesting a CP aperture maker to produce a CP aperture necessary for generating the selected circuit pattern through the network after the circuit pattern is ordered by the person who wishes to place an order.

6. A method of producing a semiconductor device upon receiving an order for the semiconductor device based on information transferred between a person who wishes to receive an order and a person who wishes to place an order through a network, the method comprising:

causing the person who wishes to place an order to input specifications of the semiconductor device by request of the person who wishes to place an order; transmitting the specifications of the semiconductor device to a server, and causing

the server to generate a plurality of circuit patterns in consideration of conditions for transferring a pattern by charged-particle beam exposure of a character projection method based on the specifications of the semiconductor device and to obtain at least two design parameters for each of the circuit patterns;

receiving said at least two design parameters from the server; and

presenting said at least two design parameters to the person who wishes to place an order for each of the circuit patterns and causing the person who wishes to place an order to select a circuit pattern satisfying a desired condition.

7. A system for producing a semiconductor device through a network, comprising:

a standard cell library which is configured to store a plurality of standard cells for optimizing a circuit pattern for each functional unit;

a CP aperture library which is configured to store a plurality of CP apertures as design data, the CP apertures being used for charged-particle beam exposure of a character projection method;

a condition setting section which is configured to cause a person who wishes to place an order to input specification of the semiconductor device through the network;

a circuit pattern generating section which is configured to generate a plurality of circuit patterns based on the specifications using the standard cells stored in the standard cell library;

5 a parameter calculating section which is configured to calculate at least two design parameters for the plurality of circuit patterns generated from the circuit pattern generating section; and

10 a circuit pattern selecting section which is configured to present said at least two design parameters to the person who wishes to place an order through the network and causing the person to place an order.

15 8. The system according to claim 7, wherein the parameter calculating section calculates a cost and a delivery time period for each of the plurality of circuit patterns, and the circuit pattern selecting section presents the cost and the delivery time period to the person who wishes to place an order.

20 9. The system according to claim 8, wherein the cost includes a production cost of a CP aperture to be newly produced by the charged-particle beam exposure of the character projection method, and the delivery time period includes a production time period required for  
25 newly producing a CP aperture.

10. A program product for causing a computer system to produce the semiconductor device upon

receiving an order for the semiconductor device by transferring information between a person who wishes to receive an order and a person who wishes to place an order through a network, the program product

5 comprising:

a recording medium; and

first, second, and third instruction means which is operated by the computer system and is recorded on the recording medium, wherein

10 the first instruction means provides the computer system with an instruction to cause the person who wishes to place an order to input specifications of the semiconductor device by request of the person who wishes to place an order;

15 the second instruction means generate a plurality of circuit patterns in consideration of conditions for transferring a pattern by charged-particle beam exposure of a character projection method based on the specifications of the semiconductor device, and obtains  
20 at least two design parameters for each of the circuit patterns; and

the third instruction means presents said at least two design parameters to the person who wishes to place an order for each of the circuit patterns and causes  
25 the person who wishes to place an order to select a circuit pattern satisfying a desired condition.

11. A data signal which is embodied by a carrier,

for allowing a semiconductor device to be produced upon receiving an order for the semiconductor device based on information transferred between a person who wishes to receive an order and a person who wishes to place an order through a network, the data signal comprising:

5 a program code portion which is configured to cause the person who wishes to place an order to input specifications of the semiconductor device by request of the person who wishes to receive an order;

10 a program code portion which is configured to generate a plurality of circuit patterns in consideration of conditions for transferring a pattern by charged-particle beam exposure of a character projection method based on the specifications of the semiconductor device, and obtain at least two design parameters for each of the circuit patterns; and

15 program code portion which is configured to present said at least two design parameters to the person who wishes to place an order for each of the circuit patterns and cause the person who wishes to place an order to select a circuit pattern satisfying a desired condition.

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